October 12, 1907.

Dr. Arthur A. Noyes,
Institute of Technology,
Boston, Mass.

My dear Doctor Noyes:

Your letter of September 24 has just been received, upon my return from the West. I had planned to be in Boston in time for the Corporation meeting, and was particularly desirous of meeting you and others before the time of the meeting. I was prevented, however, by the continuation of the sessions of the Inland Waterways Commission, of which I am a member. I found that I could not leave the meeting without breaking the quorum, and hence was not able to carry out my original plans.

I hope to come to Boston by the time of the next meeting, or possibly earlier.

Very truly yours,

[Signature]
March 4, 1908

Dr. Arthur A. Noyes,
Acting President, M.I.T.,
Boston, Mass.

My dear Doctor Noyes:

Your note of March 2 has been received, calling attention to the meeting of the Corporation on Wednesday, March 11. My plans are to attend the meeting, if possible, although I may be detained here by unforeseen conditions arising out of action by Congress.

In this connection I understand that preceding the last meeting of the Corporation there was a gathering in the morning of some of the newer members of the Corporation with some members of the Faculty, and that there was a very valuable exchange of views and discussion of conditions such as has not been found practicable at the regular meetings of the Corporation.

If this is the case, I trust that a similar meeting can be held on Wednesday morning. I will probably reach Boston early in the morning and will be very glad to take part in this meeting, if one can be arranged for. I understand that anything of this kind is wholly informal and in fact, gains in value from this condition, being designed to be educational as regards the younger members of the Corporation.

Kindly let me know whether this can be arranged, as my plans may be somewhat affected by it.

Very truly yours,

FREDERICK HAYNES NEWELL
U.S. RECLAMATION SERVICE
WASHINGTON, D.C.
Dear Dr. Newell:

Thank you for your note of March 4th. I was glad to see that you feel it is desirable that there be an informal meeting of the members of the Corporation for discussion on Wednesday morning. You will before this probably have received the invitation to that meeting, which has been sent to all members of the Corporation and to the members of the Committee on Faculty Business.

I am writing you especially at this time to ask you if you will not speak before a general convocation of our students on Wednesday at 2 P. M. You will remember perhaps that I spoke to you about these convocations when you were in Boston last and of the great value which they have in inspiring our students and in increasing their breadth of view and interest. They are also occasions of much enthusiasm. I hope, therefore, you will consent to talk for twenty minutes to half an hour to the students. While I am, of course, glad to leave the subject to your judgment, it would seem to me that an account of your own life work in the Irrigation service would be the most effective. As you previously suggested, you might incidentally refer to the opportunities afforded to Institute men in the Government service. As the
convocation must be announced by Tuesday morning, will you be kind enough to telegraph me on Monday whether you will speak? For other reasons, I hope it may be possible for you to come to Boston, for there are many things relating to the Institute which can be discussed with advantage.

Yours very sincerely,

March 7, 1908.

Dr. Frederick H. Newell,
Bureau of Irrigation,
Washington, D. C.
Dear Mr. Newell:

An associate professorship is vacant at this Institute through the resignation of Professor Mott, who is leaving us for the West. In looking around for his successor I am anxious to secure the services of a man who is not only strong in hydraulics (which was Professor Mott's specialty), but who will also strengthen the department of sanitary engineering. The claims of Mr. H. A. Pressy of the class of '96 have been brought to my attention; and, as I am given to understand that you may know something of his capabilities, I am writing to ask if you will be good enough to let me know frankly your opinion of him for this special purpose.

Yours sincerely,

October 21, 1909.

Mr. F. H. Newell,

U. S. Geological Survey,

Washington, D. C.
Dear Mr. Newell:

I must thank you for your prompt reply to my inquiries with reference to Mr. H. A. Pressy, and am pleased to learn that your impression of him is favorable. Mr. Pressy, as you surmise, is already getting a much larger salary (namely, $6000 a year) than we can possibly offer him at this Institute. His employment seems, however, to be of such a character that he would retain it and at the same time be of great assistance to us here. At any rate, it may be worth while to try the experiment; as it is quite evident that we can not get men of large experience and practical insight at the salaries that we can afford to offer, unless we allow them to engage to some extent in outside practice.

Yours sincerely,

October 25, 1909.

Mr. F. H. Newell,

U. S. Geological Survey,

Washington, D. C.
Dear Mr. Newell:

I must thank you for your further letter with reference to Mr. Pressey, and shall communicate immediately with Mr. MacRae and ask him for a confidential opinion.

Yours sincerely,

October 29, 1909.

Mr. F. H. Newell,

U. S. Reclamation Service,

Washington, D. C.
On Train Oct 27, 09

My dear Dr. MacLauren,

With reference to my letter of recent date. I fear that I must modify my statements regarding Mr. K. A. Pressley. I have had a talk with my classmate Hugh MacRae who has recently employed Mr. Pressley and from what he tells me in semi-confidence I have some doubts in this matter so much so that I think it better...
to ask you to withdraw my letters and simply say I do not know; Mr. MacRae's address is 3015
Ewing Bldg, New York City, if you care to ask him.

Sincerely yours,

F.H. Shurtleff.
Dr. Richard Maclaurin,
Institute of Technology,
Boston, Mass.

Dear Sir:

Your letter of October 25th has been forwarded to me.

Since writing from Washington I ran across one of my former classmates, Mr. Hugh MacRae of Wilmington, North Carolina, who has an office also at 3001 Singer Building, New York City. He has had business dealings with Mr. Pressy lately and from him I learned accidentally of conditions which tend to modify my former letter. I wrote you a note to this effect on the train and asked you to consider this letter as not written. In other words, while I have a high personal regard for Mr. Pressy I do not feel justified in writing any favorable or unfavorable statements in the present uncertain condition of my information.

Very truly yours,

[Signature]

Director.
January 10, 1911.

Dr. Richard C. Maclaurin,
Massachusetts Institute of Technology,
Boston, Mass.

Dear Sir:

Replying to your letter of January 7 regarding the Congress of Technology, it will give me pleasure to accept your kind invitation to contribute a short paper with reference to the solution of specific problems that have arisen in the course of my work.

This paper will deal with the engineering and economic problems of conserving the flood or waste waters of the arid regions and of utilizing these in the development of agriculture and creation of homes for citizens on the desert lands. The title may be given as "Reclamation of the Arid West."

Very truly yours,

[Signature]

F. H. Nemul
March 25, 1911.

Dr. Richard C. MacLaurin,
Institute of Technology,
Boston, Mass.

Dear Sir:

Referring to your letter of January 7, and my reply of January 10, also to letters from Mr. Walter B. Snow of February 27, and March 8, I am sending herewith draft of paper requested to be prepared before March 25. I regret that it was impossible for me to prepare this earlier, and to send an advance abstract, but the pressure of business prevented.

Very truly yours,

[Signature]

Copy to Mr. W.B. Snow

[Signature] Director.
Dear Mr. Newell:

The Congress of Technology is to open on Monday, April the tenth, just a fortnight from today. It is therefore time that final arrangements should be made for that Congress, and I write to express the hope that you will submit the paper that you have been good enough to undertake, as early as you can possibly do so.

It is extremely desirable that papers should be presented by their authors, as a paper read by some one not thoroughly familiar with it loses half its force. I hope, therefore, that you will be present to deliver your paper, and I shall take it for granted that this is to be the case, unless I hear from you to the contrary before the end of this week.

Yours very truly,

March 27, 1911.

Mr. F. H. Newell,

U. S. Reclamation Service,

Washington, D. C.
Dear Sir:

I must thank you for your paper on "Reclamation of the Arid West", a paper that will doubtless prove a welcome contribution to our Congress of Technology.

Yours very truly,

March 29, 1911.

Mr. F. H. Newell,
U. S. Reclamation Service,
Washington, D. C.
Mr. F. H. Newell, Director of the U. S. Reclamation Service, addressed the students of the Mass. Institute of Technology at a general convocation held on Wednesday at 2 p.m. The subject was the work of the National Government in the reclamation of arid and semiarid lands of the West by means of irrigation. The speaker emphasized the opportunities offered to Institute men in the Government service, not only in the work of reclamation but also in the work of the Forest Service, the Geological Survey, and other bureaus devoted to scientific investigations or to construction of large engineering works.

The Government is spending upwards of $40,000,000 in large structures for storing and distributing water to lands which do not have sufficient rainfall for the production of crops. This work is being carried on in all of the Western States and Territories beyond the Missouri River. The money is obtained from the proceeds of the disposal of public lands. Great reservoirs are being built in the mountains, protection being afforded to these by their location within National Forests. The water from the reservoirs during the crop season is allowed to flow down the beds of the streams, which during that part of the year are naturally dry. It is then diverted by means of gravity canals leading from the streams and carrying it away from the rivers out towards the fertile lands near the foothills.
In some cases long tunnels are being built to carry water from one river system, where it is in excess, to another area where the streams do not furnish an adequate supply for the large extent of arid lands.

The work necessitates a thorough exploration of the entire Western country, the careful surveying and mapping of the reservoir sites and catchment areas, the preparation of plans and estimates, and the letting of contracts or the carrying on of the operations directly by what is known as "force account."

The works thus built are self-supporting; that is to say, the money invested in them is to be returned to the Government in instalments extending over 10 years. The owners of the lands benefitted are obligated to pay back the estimated cost without profit or interest on the investment, the Government obtaining what is equivalent to a profit or interest by the development of the country and the increase of home markets. The farmers who settle upon this land and cultivate it in small farms are among the most prosperous people of the world, and they are large consumers of manufactured products. The creation of centers of population in the vast arid areas of the West contributed more than any other agency to the upbuilding of the commonwealth and to the stability of our institutions.

Mr. Newell also pointed out the fact that this work of reclamation was one of the factors of general conservation of the National resources now beginning to attract public attention. The conservation of the forests is now well under way through the
activity of the Forest Service. The conservation of the natural fuels, especially of the valuable beds of coal on the public domain, is under careful consideration, and the conservation of water powers is being agitated. Beyond these and entering into all of them is the great question of inland waterways, of cheap transportation of products, one of the fundamentals of the conservation of the National wealth.
Dear Mr. Newell:

I am asked to appoint delegates to represent the Institute officially at the National Irrigation Congress to be held in Chicago December 5th to 9th, next. You doubtless appreciate more fully than most men the importance of the problems to be discussed at this Congress, and certainly no one could more appropriately represent the Institute on such an occasion. I hope, then, that you will be good enough to appear as a delegate from your Alma Mater.

Yours sincerely,

November 7, 1911.

Mr. Frederick H. Newell,

Director, U. S. Reclamation Service,

Washington, D. C.
November 27, 1911.

Mr. Richard Maclaurin,
President, Institute of Technology,
Boston, Mass.

Dear Mr. Maclaurin:

Upon my return to Washington, I find your letter of November 7, appointing me as delegate to represent the M.I.T. officially at the Irrigation Congress in Chicago. I thank you for the honor and if I go to Chicago, will be very glad to accept the appointment.

Very truly yours,

[Signature]
Director.
Dear Mr. Newell:

I shall be much gratified if you can find it convenient to represent the Institute at the inauguration of the President of Howard University on Friday December the 13th.

Yours sincerely,

November 29, 1912.

Mr. Frederic H. Newell,
Director, U. S. Reclamation Service,
Washington, D. C.
Mr. Charles A. Stone,
147 Milk St.,
Boston, Mass.

My dear Mr. Stone:

I have lately had the pleasure of a conversation with Mr. John R. Freeman, in which he explained to me the plans on which he is working for the Institute of Technology. I am greatly impressed with these, as they seem to offer a solution to some of the problems in which I am interested. We are employing, as you know, several hundred young engineers or technical graduates. At the outset, we find that we must instill in their minds certain ideas of efficiency and economy. Very few of them have any real conception of what is implied by these terms because of the fact that they have not been educated under surroundings which enforce practical lessons of efficiency of effort and of economy of time.

We are also carrying on a considerable part of our work in Government buildings most of which have been planned without reference to use, but almost wholly with regard to some external feature in which economy, convenience, and even health itself, have been sacrificed to appearances, money having been lavishly wasted on decorative effects in which
falsehood largely predominates in the attempt to deceive the observer at first glance into the belief that iron, brick, etc., is massive stone construction. The numerous examples in the modern public buildings in which light and ventilation have been sacrificed for tawdry effects, valuable time wasted, eyesight injured, and tuberculosis propagated, led me to take perhaps an extreme view and predisposes me to welcome the sane, businesslike suggestions of Mr. Freeman.

It is my belief that young men, educated under conditions such as those proposed by Mr. Freeman must be fundamentally stronger along the lines of effective service than if educated in the ordinary school or college buildings scattered about at a distance, and planned not with reference to utility, but wholly to gratify the pride or ambition of some dead man.

To my mind at least, there need be no sacrifice of true artistic effect. I cannot believe that real art necessitates concealment of the purposes of a building, nor scattering the parts of an institution in separate buildings, but on the contrary, that a proper treatment which is based upon utility may be the foundation for a better conception of architecture. The average man now evidently believes that architecture is mainly an attempt to make an office or a college building look like an ancient mausoleum, suitable perhaps for the dead, but wholly unfit for the living.
Mr. Freeman's idea of one large building, grouped about a central power plant, and with Assembly Hall and Library especially prominent, appeals to me as being at the foundation of a sound technical education. The engineer educated under conditions which he has described must inevitably imbibe more consistent ideas of efficiency than if he sees daily on every hand examples of wasted time and energy in the very elements of his education.

I could follow out this idea at some length but merely take this opportunity of expressing to you, as one of the Alumni, my appreciation of the work being done by Mr. Freeman and the hopes that his ideas may be given the prominence which I think they deserve.

Very truly yours,

[Signature]

Director.
Dear Mr. Newell:

I shall be much gratified if you can represent the Institute at the Fifth National Conservation Congress which is to be held in Washington, D. C., November 18th, 19th and 20th.

Yours sincerely,

October 17, 1913.

Mr. F. H. Newell,

Director, U. S. Reclamation Service,
Washington, D. C.
Dr. Richard MacLaurin,

President Institute of Technology,

Boston, Massachusetts.

Dear Dr. MacLaurin:

Your letter of October 17 has been forwarded to me, with reference to representing the Institute at the Fifth National Conservation Congress in Washington November 18-20. I regret exceedingly that at the present time it seems impossible for me to be in Washington at that time, as I have arranged for a number of meetings on the Pacific Coast, and will probably not be back in Washington for two weeks or more after the date set. I regret not being able to represent the Institute as well as my inability to attend the conference.

Very truly yours,

[Signature]

Director.
Dr. R. C. MacLaurin,
President, Mass. Inst. of Technology,
Cambridge, Massachusetts.

Dear Dr. MacLaurin:

During the past few weeks I have been giving special attention to aviation matters and doing what I could to have established here a training school and army aviation field. The work is now under way and instruction began on May 21, presumably similar to that undertaken at M.I.T.

In the course of my recent work, I visited the Institute on April 28 and had a talk with Prof. Cecil H. Peabody, Mr. Alexander Klemin and others. About that time I visited the wind tunnel and special work being carried on at the Curtiss factory in Buffalo, and at the Navy Yard in Washington. In talks with production engineers and others, I have been more than ever impressed with the work which has been carried on at M.I.T., and the need of conducting this on a far larger scale.

I appreciate that you have achieved wonderful results in the upbuilding of Technology and have probably left no stone unturned to secure additional funds. The present crisis, however, and that fact that the winning of the war depends largely on educational research and inventions, especially in aviation, justifies even greater exertions directed especially toward securing larger funds for such research. In talking with friends and acquaintances in Washington, it seemed as though it might be possible to make a special campaign for a fund of $100,000 more or less to equip the aviation experimental plant. The opinion has been vaguely expressed that some of the manufacturers and others who are benefitting largely out of war conditions could or would be willing to contribute largely to such work, especially in view of the large tax which will be laid upon profits. They might in part anticipate this tax by presenting the money to M.I.T. for research or to find a laboratory to which might be attached the donor's name in recognition of the gift.

You have presumably considered all this and have a larger appreciation than I of its feasibility or difficulty. It has seemed to me, however, that I owed a duty to M.I.T. to call attention to the fact that others have been thinking
along this line - not very definitely, but that it is in the air and that possibly you might be justified in making a special effort because of the country's need and of the appreciation which is now spreading that the war is to be fought largely in the air and that to perfect the flying division we must have experimentation on a far larger scale. Moreover, after the war there will be need of commercial craft yet to be developed through research.

If I can be of any service in this connection, please call on me as I will gladly do what lies within my power.

Cordially yours,

F.N. \_\_\_\_

M.I.T. '85.
Dear Professor Newell:

I must thank you for your letter of May 26 regarding research in aeronautics. There can be no question of the need of such a plan as you suggest and it would seem as if this would be a good time to obtain the necessary funds. I have made some efforts in that direction without, however, any conspicuous success as yet. I am not discouraged and hope that with your assistance and that of other loyal alumni the difficulties will yet be successfully overcome.

Yours sincerely,

May 31, 1917.

Professor F. H. Newell,
University of Illinois,
Urbana, Illinois.
Urbana, Illinois,
June 13, 1917.

Dr. Richard C. Maclaurin,
Massachusetts Institute of Technology,
Boston, Massachusetts.

Dear Dr. Maclaurin:

The Commencement exercises here have revived a long dormant idea of a purely personal matter which I wish to bring to your consideration when opportunity may offer.

I graduated from the M.I.T. in 1885, and entered upon a post graduate course with the idea of obtaining the degree of Doctor of Engineering in 1888. I remained at the Institute for some time, but did not complete the three years, finding it necessary to go to work before finishing my thesis. Since that year I have devoted my time almost exclusively to public service, beginning in one of the lowest positions in the civil branch and being advanced until I became head of one of the large federal bureaus, one which was practically the realization of my dreams. During the nearly thirty years which have elapsed, I have written many reports, some of which have been under my own name and have published various books and pamphlets.

The question I wish to ask is whether under the rules of the Institute I can successfully apply for the degree of Doctor of Engineering in 1918, and thirty years after the date originally set. In some of the colleges there is a provision by which graduates who have done extra work at the college and have spent twenty-five years in public service may be given this recognition. I have already the degree of Doctor of Engineering given in 1912 by Case School, but of course I should greatly prefer to have such recognition from Technology.

Kindly give this proper consideration and when opportunity offers advise me in the matter.

Cordially yours,

FHN: L
Dear Professor Newell:

Dr. Maclaurin is away from Boston for a week or two. Upon his return, I shall be glad to bring your letter of June 13 to his attention.

Yours sincerely,

Secretary to the President.

June 16, 1917.

Professor F. M. Newell,
University of Illinois,
Urbana, Illinois
Dear Professor Newell:

I am just passing through Cambridge and find your letter of June 13 awaiting me. It would be a great gratification to me and doubtless to all your old colleagues here to have you receive the Institute's degree of Doctor of Engineering. Your case is, of course, a unique one and just for the moment I am not clear as to how it fits in with the rules of the Faculty. I shall put the matter before the Secretary of that body, Professor Merrill. Unfortunately, he is away at present, but I shall be able to get in touch with him soon.

With kind regards, I am,

Yours sincerely,

June 29, 1917.

Professor F. H. Newell,

University of Illinois,

Urbana, Illinois.
South Wellfleet, 
July 5, 1917.

Dear Dr. Goodwin,

I enclose a note just received from Dr. Maclaurin encasing the one from Mr. Newell.

I have written Dr. Maclaurin that Newell's request would go to the committee on Advanced Degrees and Fellowships, and that you let him (the President) know the probable attitude of the committee and when a definite reply could be sent to Newell.

Very sincerely yours,

Secretary.
July 5, 1917.

This is to certify that Mr. Roger Barrett McMullen Jr., a graduate of Williams College is admitted.
South Wellfleet,
July 5, 1917.

Dear Dr. Maclaurin;

I have your note enclosing Mr. Newell's letter.

It will be necessary to refer his request to the committee on Advanced Degrees and Fellowships of which Dr. Goodwin is chair-
man.

I am sending your note and Mr. Newell's to Dr. Goodwin and am asking him to write you as to the probable attitude of the committee and also when it will be possible for a definite answer to be sent to Mr. Newell.

I trust you had a good rest and a bit of recreation when you were away. Please be sure to let me know if there is anything I can do for you.

Very sincerely yours,
Dear Professor Newell:

I was sorry not to have the pleasure of seeing you when you visited the Institute recently. I happened at the time to be in the country. There are various matters that I should have liked to discuss with you amongst those being questions concerning the experience of your University in the conduct of the School for Military Aeronautics. The authorities in Washington are, I suppose, doing their best, but it is certainly not very good. They seem to me particularly to lack knowledge of human nature, pursuing occasionally a policy of petty and unintelligent criticism which inevitably does vastly more harm than good. However, I do not wish to trouble you with details of bureaucratic inefficiency, but I should very much like to know something of your experience and attitude, particularly in regard to two problems that have arisen.

The first of these is the problem of the limits to which the cooperating educational institutions should go in meeting the ever-increasing demands from Washington for greater facilities. A specific instance may indicate what I have in view. The work of the Schools requires several airplanes. We have been able to house those hitherto supplied
in our existing buildings which, as you know, are large, but now crowded. There may be a sudden demand for the employment of several more airplanes and this will call in our case for very considerable expenditures in properly housing these machines during the winter. Have your associates at Illinois acted on the assumption that they must meet all such demands?

The second question has reference to the relative functions of the Army and the Institute, or the Army and the University, as the case may be. I told Major Bingham when I first saw him that it seemed to me extremely important that there should be as clear as possible an understanding regarding the spheres of influence of the cooperating parties. Little or nothing has been put in writing on this matter, but I understood that the Army was absolutely responsible for discipline and for distinctly military training, but that the Institute was to be responsible for what we might call the academic training as distinct from drill and the like. It was understood, of course, that as there were several schools and uniformity was necessary the curriculum was to be laid down from Washington, but the selection of instructors and the fixing of their salaries must be a matter for the Institute. Further than that, the Institute was to be represented on the Academic Board (whose functions, by the way, would be similar to those of
Professor Newell - 3.

a Faculty), and that the Institute's representative was to be President of the Board. To-day, however, there has been brought to my attention instructions from Washington sent out on August the 18th in the form of a memorandum for all schools in which it is stated that the Commandant is to preside at the meetings of the Academic Faculty. The Commandant here at the time apparently ignored these instructions, but his successor who has just arrived interprets this memorandum as a direct order from Washington that he must obey. I need hardly tell you that I don't care in the least who presides at a meeting provided that the arrangement is effective. Consequently, this matter only has significance to me to the extent that it may be indicative of a general trend of policy to make the cooperating institutions absolutely subservient to Washington. I doubt the wisdom of such a policy simply because it seems to me likely to lead to ineffectiveness. As I have said, I should greatly appreciate some indication of your experience in this and kindred matters. If changes are to be brought about, they can probably best be done by concerted action of a group of institutions rather than by a single one.

As some of the questions touched upon in this letter call for early decision on my part, I hope that you will be good enough to reply as early as possible.

Yours sincerely,

Professor F. H. Newell,
Ir. Richard Maclaurin,
President, M. I. T.,
Cambridge, Massachusetts.

Dear Ir. Maclaurin:

Your letter of October 4 just received is of peculiar interest to me because I was in at the beginning of these schools and although not officially connected with them have watched with great interest their development. Moreover as a civilian employee of the government I have been in frequent contact with the military side for over a quarter of a century and have personal knowledge of the friction which seems to be inevitable when military men and civilians are brought into contact. There is no way apparently of avoiding this among subordinates because they can not or will not use tact and it is only when higher rank is attained that the army officers enjoy the privilege of using discretion.

During the time of initiation of the Aeronautic schools there was rapid evolution of ideas and many apparently contradictory instructions have gone out from Washington so that it has been necessary for the men in the field to interpret these and use considerable judgment in applying them to specific cases. Unfortunately some of the commandants have been young men rapidly advanced from the rank of Lieutenant to that of Captain or Major and have not had time to gain the wider viewpoint. They have been more concerned in the enforcement of minor military rules and securing discipline as contrasted with information or education. In fact some have not hesitated to express their lack of interest and personal doubts as to the value of the educational courses. For this reason their presence at the meeting of academic boards has been more or less perfunctory. The orders as I understand them is that the commandant is in supreme control of everything in the school, including the instruction. He receives all advice from Washington and transmits such portions as in his judgment is desirable. He theoretically presides at the meetings, but in practice apparently delegates his authority to the President of the Academic Board who reports to him, the instructions on this point being not quite clear. At this school, I understand, the commandant has rarely, if ever, been present at the meetings, as he has not been at all interested in these matters; but rather has confined his efforts wholly to discipline. His tendency to magnify trifles led finally to definite action
by University authorities stating that it was impossible to conduct the school because of these limitations and another officer has been sent.

It is hoped that in the future there will be less insistence upon minor, irritating restrictions and broader views of the ultimate object to be accomplished.

With reference to the meeting the ever increasing demands from Washington for greater facilities, the stand taken here, as I understand it, is that the University will offer every facility it possesses but can not go beyond these and provide additional accommodation. We have ample storage for airplanes but in the event that more should be sent beyond the capacity of our large buildings (the Armory has a floor space of two acres) we would undoubtedly be inclined to attempt to provide other buildings for this purpose.

The relative functions of the army and the University I have already mentioned. There has been apparently a lack of any clear understanding, as the policy adopted has been for Washington officials to correspond more or less freely with the commandant and he in turn has interpreted the matters according to his personal judgment. There is no doubt but that the army is responsible for discipline and that it in theory controls the academic training. In practice, however, it leaves this to the University looking to us to select instructors, fix salaries, and indicate how the prescribed subjects should be taught. The President of the Academic Board is supposed to be under the control of the commandant but practically must display large initiative and perform all of the larger functions in accordance with his understanding of the objects.

Orders are coming out from Washington at short intervals which tend to upset the systematic conduct of instructions and great patience is required to make readjustments as apparently the people in Washington preparing these revisions of the courses have had little practical experience and do not appreciate how these changes are to be put into effect. There is much more which might be said on this matter and if opportunity offers I will be glad to give you some of our experiences.

I am very glad to hear from you, and hope I may have the opportunity of seeing you in the near future.

Cordially yours,

F.W. Kendall
March 22, 1918.

President Richard Maclauren,
Mass. Institute of Technology,
Cambridge, Massachusetts.

Dear Dr. Maclauren:—

On June 29, 1917, you wrote me regarding my letter of June 13, concerning Doctor's degree. I have not had any further letters on the subject, but assume that no favorable action was taken. I wish, however, that you would send me any printed matter which may be available concerning this degree and especially the resident requirement.

My recollection is that I filled the resident requirement during the years subsequent to 1885, when I was working on the post graduate courses. However, your records presumably show this.

Cordially yours,

F. H. Newell
Dear Mr. Newell:

I am sorry that there has been some misunderstanding regarding your inquiry concerning the Doctor's degree here. Probably there is a catalogue of the Institute in the library of the University and if so you will find the requirements for the Doctor's degree set forth on page 164 and the following pages of the last catalogue. If this is not available, of course I shall be glad to send you one. The problems affecting candidates for the Doctor's degree are referred to a Committee of the Faculty on Advanced Degrees, - a Committee of which Dr. Noyes is Chairman and Professor II. N. Goodwin secretary. I have asked this committee to look more carefully into your case with a view of determining what you would need to do to satisfy the requirements for graduation. From a conversation I had with Professor Goodwin some time ago I understood that the older records were somewhat incomplete. If this is so in your case, the Committee on Advanced Degrees would doubtless be guided in its determination of the matter by your recollections of the facts. With kind regards, I am,

Yours sincerely,

April 4, 1918.

Professor E. E. Newell
Dr. Richard Maclaurin,  
President, M. I. T.,  
Cambridge, Massachusetts.

Dear President Maclaurin:--

Thank you for your letter of April 4 regarding my inquiry concerning Doctor's degree.

Unfortunately M.I.T. catalogs seem to be quite scarce in this part of the world, and I suggest that if readily available you have a copy sent to me to be deposited in our Engineering Library.

In the Bulletin which I have found, which is not very recent, I note the statement that "as a rule the study and research must be pursued under the faculty for three years. Candidates of exceptional ability or those who have had exceptional preparation may be able to complete the requirements in less time. The required time of residence may be somewhat reduced in the case of candidates who satisfy the faculty, etc."

It was my understanding that the full period of three years was not absolutely required; and in my own case I continued the post graduate studies less than three years, but as I now recall for the major portion of that time, namely, from the fall of 1885 until about the time I entered government service in 1888. My recollection was that Professor Niles, Sedgwick and Crosby were a committee and that they individually advised or favored the government work as something of the nature of an acquisition.

It being about thirty years ago, my recollection is not at all reliable, but possibly Professors Sedgwick or Crosby may have a dim recollection.

My interest in the matter was stimulated by the recent action of our faculty in passing or modifying a rule by which after the lapse of twenty-five years, the full requirements of residence have been relaxed. I assumed that possibly you might have some similar rule applicable even though the full three years was not finished in residence at M. I. T.

Cordially yours,

FHN: L
Dear Professor Newell:

I am, of course, glad to send you a Catalogue of the Institute. The Committee to which I referred in my last letter has sent me an informal report. I need not say that there is every inclination to overcome technical difficulties, but unless the Rules of the Faculty are changed, the difficulties in your case seem to be insurmountable. At the time when you were in residence here the degree of Doctor of Engineering was not offered, nor were there any courses offered that, according to the rules now in force, could properly be described as leading to a doctor’s degree. There is, of course, the possibility that the Rules of the Faculty may be changed so as to cover a case such as yours. You mentioned that your Faculty had recently modified its Rules so as to relax somewhat the requirements to meet the needs of more mature men. Will you be good enough to send me a copy of the Rules dealing with this matter in order that I may bring them to the attention of the Committee of our Faculty on Advanced Degrees.

Yours sincerely,

April 12, 1918.

Professor E. H. Newell.
Dr. S. W. Stratton,
President, Mass. Ins. Tech.,
Cambridge, Mass.

Dear Dr. Stratton:

We, that is the alumni in Washington, have been talking over in a general way the possibility of your visit to us some time in the near future; probably A. B. McDaniel has communicated with you regarding this.

For myself, I hope to be able to call on you some time this winter and renew my touch with Institute affairs.

During several years in succession I made it a practice to meet with one or another of the classes at the Institute to encourage the young men to consider the government service and to take civil service examinations. In this way I secured scores of the most effective of the younger engineers in the Reclamation Service.

Due to war and other conditions, I was compelled to drop this practice and have now got out of touch with conditions at M.I.T. as many of my old associates have gone. I should be very glad, however, if it can be arranged, to give one or more talks to the engineering students or others interested in the broad field of water resources and the uses of these, touching in particular upon the work of the Reclamation Service in the west and in the examinations now being made in connection with the Giant Power Survey in Pennsylvania initiated by Governor Pinchot. I am consulting engineer in this and am thus enabled to keep up my life-long acquaintance with Pinchot, and help him toward the realization of some of his ideals.

If the matter strikes you favorably, I suggest you send this letter along to some of the people who may be interested.

Cordially yours,

F. H. Newell,
1706 21st St., N.W.
October 9, 1923.

Dear Dr. Newell:

In the absence of President Stratton, I beg to acknowledge the receipt of your letter of October 6th. I shall be glad to bring your letter to Dr. Stratton's attention immediately upon his return from Europe, which will probably be about the last of next week. He will, I am sure, greatly appreciate your interest in the Institute and your willingness to speak to the students.

Yours sincerely,

Secretary to the President.

Dr. F. H. Newell,

1706 21st Street,

Washington, D. C.
Dr. S. W. Stratton,
President, Mass. Ins. Tech.,
Cambridge, Mass.

Dear Doctor Stratton:

Referring to our conversation before dinner on April 24, I am greatly delighted to know that you are planning to take up research in the line of hydroeconomics. I have been long impressed with the conditions to which you refer, namely, that relatively little progress has been made in this important line although water and water resources are fundamental in most industries.

I should be very glad to try to assist you in some of the details. As you know, since I left the Institute in 1885, and particularly since I organized the hydrographic work of the U.S.G.S. in 1888, I have been giving most of my time and energies to the practical and to a less extent to the scientific aspect of the case, organizing a number of lines of research, most of which have been of great value but not all of which have been thoroughly followed.

Whenever opportunity arises, I hope that you will let me know about your plans.

In former years I gave somewhat systematically a series of talks at the Institute, as a result of which I have met literally scores of middle-aged and young engineers who have expressed in more or less extravagant terms their appreciation of these old lectures and have said that because of these they had determined upon what ultimately proved to be their life work. I now think it was worth while although at the time I did not see very definite results.

Of recent years I have given some talks, the latest being the Lyman lectures at Yale, but I should appreciate highly the opportunity to renew connections in some way with the students at Tech, particularly if you are contemplating a post graduate course combined with research. This latter of course is the attraction to any man who views the field in a big way.

Sincerely yours,

F. H. Newell.

April 26, 1926.
May 17, 1926.

Dr. F. H. Newell
The Research Service
706-7 Otis Building
Washington, D. C.

Dear Dr. Newell:

I beg to acknowledge the receipt of your letter of April 26th. In reply I would say that in arranging lectures for next year I would be pleased to take advantage of your services if it is possible to do so. Our program has not yet been entirely made out.

Yours sincerely,
May 21, 1926

Dr. S. W. Stratton, Pres.,
Massachusetts Institute of Technology,
Cambridge, Mass.

Dear Dr. Stratton:

Replying to your note of May 17, I hope that it will be practicable to arrange for lectures for the next year. I have always taken a great interest in stimulating and maintaining interest on the part of students in the larger State and national problems of conservation and use of natural resources and hope to continue along this line.

Yours sincerely,

F. H. Newell

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